

REMARKS/ARGUMENTS

Applicants respectfully request reconsideration of the present Application in view of the foregoing amendments and in view of the following reasons. Claims 1-4, 6, 7, 9, 38, 41, 43, 44, 47, 51-54, 57-59, 61, 68, 70-72, 74, and 77 are amended, and Claims 39, 45, 48, 65, 66, 69, and 75 are canceled. No new matter has been added. Support for the claim amendments can be found throughout the original claims and specification. After entry of the foregoing amendments, Claims 1-12 and 38, 40-44, 46, 47, 49-64, 67, 68, 70-74, 76, and 77 will be pending in this application.

Though the above claim amendments are being made after final rejection, Applicants respectfully request entry of these claim amendments. The amended claims have been amended to include similar elements to those included in Claims 39, 45, 48, 65, 66, 69, and 75, which are canceled herein. In addition, Applicants respectfully submit that the claim amendments put the application in better condition for appeal.

I. Claim Rejections Under 35 U.S.C. § 112

On page 2 of the Office Action, Claims 39, 48, and 69 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. More specifically, the Examiner asserted that “Claims 39, 48, and 69 recite ‘TRAU frame is a generic TRAU frame’ the claim language is indefinite.” Claims 39, 48, and 69 have been canceled, rendering their rejection moot.

Independent Claims 1, 9, 47, 61, 68, 72, and 77 have been amended to recite and further clarify a “generic TRAU frame.” As such, Applicants respectfully submit that independent Claims 1, 9, 47, 61, 68, 72, and 77 and their associated dependent claims satisfy 35 U.S.C. § 112, second paragraph.

II. Claim Rejections Under 35 U.S.C. § 101

On page 3 of the Office Action, Claims 68-77 were rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. More specifically, the Examiner stated:

Claims 68, 72, and 77 recite: "computer executable instructions". As set forth in the Interim Guideline a computer program must be stored on a computer readable medium, and computer readable medium must not include as non-transitory media such as signals or transmission. However, applicant's specification does not clearly exclude computer readable medium as non-transitory media such as signals or transmission media. Thus, claims 68-77 are non-statutory for the aforementioned reason.

Applicants respectfully disagree and submit that Claims 68-77 satisfy 35 U.S.C. § 101.

The Examiner first appeared to assert that a "computer program must be stored on a computer readable medium. Independent Claim 77 is directed to a "network element comprising a transcoder and rate adaptor unit (TRAU)." Claim 77 does not recite a "computer-readable medium" or "computer executable instructions," as recited by the Examiner.

Independent Claims 68 and 72 recite, in part, a "tangible computer-readable medium having stored thereon, computer-executable instructions." (Emphasis added). As such, the "computer-executable instructions" recited in Claims 68 and 72 are stored on a "computer-readable medium."

Secondly, the Examiner appeared to assert that Claims 68 and 72 are directed to "transitory forms of signal transmission." Specifically, the Examiner stated that "[A]pplicant's specification does not clearly exclude computer readable medium as non-transitory media such as signals or transmission media." Applicants respectfully disagree and submit that the Interim Examination Instructions For Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101 (Interim Guidelines) do not require such a showing in the specification.

Page 2 of the Interim Guidelines states that “[n]on-limiting examples of claims that are not directed to one of the statutory categories [include] [t]ransitory forms of signal transmission (for example, a propagating electrical or electromagnetic signal per se).” Page 3 of the Interim Guidelines states that “the claims as a whole must be evaluated for [subject matter] eligibility.” (Emphasis in original). Page 4 of the Interim Guidelines further states that “a claim to a non-transitory, tangible computer-readable storage medium per se that possesses structural limitations under the broadest reasonable interpretation standard to qualify as a manufacture would be patent-eligible subject matter.”

Independent Claim 68 recites, in part:

- determining a coding type for a speech signal;
- determining a set of bits associated with each transport channel of at least two transport channels corresponding to the speech signal;
- determining a priority for each set of bits associated with each transport channel; and
- inserting each set of bits into a generic transcoder and rate adaptor unit (TRAU) frame according to the determined priority of each set of bits, wherein the generic TRAU frame is adaptable for use with different codecs

Independent Claim 77, though of different scope, recites similar features. Independent Claim 72 recites, in part:

- determining a coding type for a speech signal;
- locating a set of bits within a generic transcoder rate adaptor unit (TRAU) frame, wherein the set of bits correspond to each transport channel of a plurality of transport channels based on the coding type, and wherein the generic TRAU frame is adaptable for use with different codecs; and
- decoding the plurality of transport channels based on the corresponding set of bits in accordance with the determined coding type

Applicants respectfully submit that a “transitory form of signal transmission” such as an “electrical signal per se” could not, by itself, perform the various elements disclosed in Claims 68, 72, and 77. For example, an electrical signal itself cannot “determine a coding type,” “determine a priority,” “insert a set of bits into a generic TRAU frame,” or “locate a set of bits within a generic TRAU frame.” As such, Claims 68, 72, and 77, when evaluated as a whole (as required by the Interim Guidelines), are not directed merely to a “transitory form of signal transmission.” Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 68-77 under 35 U.S.C. § 101.

III. Claim Rejections Under 35 U.S.C. § 102(b)

On page 3 of the Office Action, Claims 9-11, 61, 72, 46, 62, 63, 67, 73, and 76 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,421,527 to DeMartin (hereinafter “DeMartin”). Independent Claims 9, 61, and 72 have been amended, rendering the rejection moot. Applicants respectfully submit that DeMartin fails to disclose each and every element of independent Claims 9, 61, and 72.

Amended independent Claim 9 recites, in part (with emphasis added):

locating within a generic TRAU frame, via the converter, a set of bits corresponding to each transport channel of a plurality of transport channels based on the coding type, wherein the generic TRAU frame is adaptable for use with different codecs

Applicants respectfully submit that DeMartin fails to disclose, teach, or suggest a “generic TRAU frame [that] is adaptable for use with different codecs.” DeMartin is directed to a “system for dynamic adaptation of wireless communication between a Mobile Station (11) and a Base Station (13).” (Abstract). Column 3, lines 19-22 of DeMartin state that a “cellular Mobile Station (MS) 11 comprising a transmitter, a receiver, an antenna and transmit/receive control switch (TR) transmits a packet frame 21 to a Base Station (BS) 13.” (Emphasis added). A “packet frame” is not the same as a “TRAU frame.” Indeed, on page 9 of the Office Action, the Examiner acknowledged that “DeMartin does not explicitly teach a transcoder and rate

adaptor unit (TRAU) and inserting into a TRAU frame, via the TRAU, each set of bits.” Because DeMartin fails to disclose a “TRAU frame,” DeMartin must also fail to disclose a “generic TRAU frame [that] is adaptable for use with different codecs,” as recited in independent Claims 9, 61, and 72.

Accordingly, Applicants respectfully submit that DeMartin fails to disclose each and every element of independent Claims 9, 61, and 72 and their associate dependent claims. As such, Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 9-11, 61, 72, 46, 62, 63, 67, 73, and 76 under 35 U.S.C. § 102(b).

IV. Claim Rejections Under 35 U.S.C. § 103(a)

On pages 8-21 of the Office Action, Claims 1-8, 12, 38-45, 47-60, 64-66, 68-71, 74, 75, and 77 were rejected under 35 U.S.C. § 103(a) over DeMartin in view of various other references. More specifically:

- On page 8 of the Office Action, Claims 1-4, 6-8, 38-43, 47-54, 57-60, 68-71, and 77 were rejected over DeMartin in view of U.S. Patent Application Publication No. 2002/0003783 to Niemela (hereinafter “Niemela”);
- On page 18 of the Office Action, Claims 5, 55, and 56 were rejected over DeMartin and Niemela in view of U.S. Patent No. 6,636,497 to Honkasalo (hereinafter “Honkasalo”);
- On page 19 of the Office Action, Claim 43 was rejected over DeMartin and Niemela in view of U.S. Patent Application Publication No. 2003/0133494 to Bender (hereinafter “Bender”);
- On page 20 of the Office Action, Claims 12 and 64 were rejected over DeMartin in view of Honkasalo; and
- On page 21 of the Office Action, Claims 44, 45, 65, 66, 74, and 75 were rejected over DeMartin in view of Niemela.

Independent Claims 1, 47, 68, and 77 were amended, rendering their rejection moot. Applicants respectfully submit that DeMartin in view of Niemela, Honkasalo, and/or Bender fail to disclose, teach, or suggest each and every element of independent Claims 1, 47, 68, and 77.

A. Claims 1, 47, 68, and 77

Independent Claim 1 recites, in part, “inserting into a generic TRAU frame, via the TRAU, each set of bits according to the determined priority of each set of bits, wherein the generic TRAU frame is adaptable for use with different codecs.” (Emphasis added). Although different in scope, independent Claims 47, 68, and 77 include similar elements. Applicants respectfully submit that DeMartin in view of Niemela, Honkasalo, and/or Bender fail to disclose, teach, or suggest such elements.

Niemela is directed to a “method of allocating Abis interface transmission channels in a packet cellular radio network.” (Abstract). On page 9 of the Office Action, the Examiner stated that “Niemela teaches a transcoder and rate adaptor unit (TRAU) and inserting into a TRAU frame, via the TRAU, each set of bits according to the determined priority ([0066]).” Paragraph [0066] of Niemela states:

On the Abis interface, the time slot information, i.e. radio blocks, is typically placed in TRAU (Transcoder and Rate Adapter Unit) frames formed for transcoding. In circuit-switched speech transfer, 260 bits containing 20 ms of speech are coded at the subscriber terminal 150 such that the most important 50 class Ia bits and 132 class Ib bits are convolution-coded. In addition, error correction bits are added to these bits, which gives a total of 378 bits. Then, 78 class II bits of less importance are added to these 378 bits. This gives a total of 456 bits, which, in principle, would fit in four radio bursts. To be on the safe side, however, the bits will be spread into eight radio bursts in sub-blocks each containing 57 bits. Each burst is transmitted at intervals of 577 microseconds. At the channel codec 216, the speech bits transmitted from eight sequential bursts are collected together. The convolution coding is decoded and the original 260 bits containing speech are placed in a TRAU frame.

As such, Niemela discloses time slot information and speech bits that are placed in TRAU frames. However, Niemela fails to give any indication that the TRAU frames are “adaptable for use with different codecs.” Accordingly, Niemela fails to disclose, teach, or suggest “generic TRAU frame [that] is adaptable for use with different codecs,” as recited in Claims 1, 47, 68, and 77.

Honkasalo and Bender fail to cure the deficiencies of Niemela. Honkasalo is directed to a radio transmitter and method for “scheduling air interface capacity between user services in a radio system” (Abstract). “The method includes defining a nominal service bit rate, a nominal capacity of the service, and an effective coding rate of the service, and scheduling air interface frame capacity between at least two different services.” (Abstract). However, Honkasalo fails to disclose or even mention a TRAU, a TRAU frame, or a generic TRAU frame. Accordingly, Honkasalo also fails to disclose, teach, or suggest a “generic TRAU frame [that] is adaptable for use with different codecs,” as recited in Claims 1, 47, 68, and 77.

Bender is directed to “layers and protocols of an air interface layering architecture [that] are designed to be modular and can be modified and upgraded to support new features.” (Abstract). However, Bender fails to disclose or even mention a TRAU, a TRAU frame, or a generic TRAU frame. Accordingly, Bender also fails to disclose, teach, or suggest a “generic TRAU frame [that] is adaptable for use with different codecs,” as recited in Claims 1, 47, 68, and 77.

Accordingly, Applicants respectfully submit that DeMartin in view of Niemela, Honkasalo, and/or Bender fail to disclose, teach, or suggest each and every element of independent Claims 1, 47, 68, and 77 and their associated dependent claims. As such, Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 1-8, 12, 38-45, 47-60, 64-66, 68-71, 74, 75, and 77 under 35 U.S.C. § 103(a).

B. Claim 43

Claim 43 recites, in part, “the generic TRAU frame is configured via a configuration message used to configure a flexible layer one protocol.” On page 19 of the Office Action, the Examiner acknowledged that the combination of DeMartin and Niemela “does not explicitly teach wherein the TRAU frame is configured via a configuration message used to configure a flexible layer one protocol.” Instead, the Examiner relied upon Bender to disclose such an element. Specifically, the Examiner stated that “Bender teaches the TRAU frame is configured via a configuration message used to configure a flexible layer one protocol ([0120] discloses sending and receiving configuration message to configure layer and protocol).” Applicants respectfully disagree.

Paragraph [0120] of Bender states (with emphasis added):

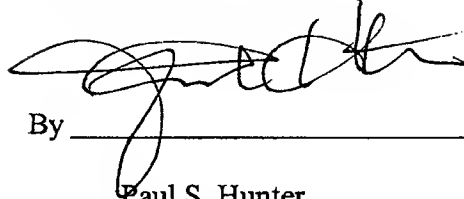
Once the layers and protocols are selected, negotiation is thereafter performed for each selected layer and protocol. In an embodiment, the layers and protocols selected by one entity (e.g., the access terminal) are negotiated first and the layers and protocols selected by the other entity (e.g., the radio network) are then negotiated. The entity negotiating a particular layer or protocol sends to the other entity a configuration-request message 830 (or 840) that includes one or more selected layers and/or protocols and a list of acceptable configurations for each selected layer and protocol. (The layers and protocols being negotiated are also referred to as attributes, and the configurations are also referred to as attribute values.) The other entity receives the configuration-request message(s) and responds with corresponding configuration-response message(s) 832 (or 842) that include the layers and/or protocols being negotiated and their selected configurations. The exchange of configuration request/response messages continues until both entities accept the negotiated attributes. A confirmation message 834 (or 844) is then sent by the entity that initiates negotiation to confirm acceptance of the negotiated attribute. Additional selected attributes, if any, are then negotiated in the similar manner.

As such, Bender discloses only the negotiation and configuration of “selected layers and protocols.” Bender fails to disclose, teach, or suggest the use of configuration messages for anything other than the configuration of the “selected layers and protocols.” Bender further fails to disclose, teach, or suggest the configuration of a “TRAU frame” using the “configuration messages” for the “selected layers and protocols.” Nor does Bender disclose any relationship between the “configuration message” and a TRAU or TRAU frame. In fact, Bender fails to even mention a TRAU or TRAU frame. Accordingly, Bender fails to disclose, teach, or suggest that “the generic TRAU frame is configured via a configuration message used to configure a flexible layer one protocol,” as recited in Claim 43. (Emphasis added).

Applicants believe that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,



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